

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:-

see form PCT/ISA/220

Date of mailing
(day/month/year) see from PCT/ISA/210 (page 2)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/DE2004/001695

International filing date (day/month/year)
7/28/2004

Priority date (day/month/year)
9/23/2003

International Patent Classification (IPC) or both national classification and IPC
F16K31/06

Applicant
ROBERT BOSCH GMBH

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/
European Patent Office Munich

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/DE2004/001695

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
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International application No.
PCT/DE2004/001695

Box No. II ● Priority

1. ☒ The following document has not yet been furnished:

☒ copy of the earlier application whose priority has been claimed (Rules 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rules 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

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International application No.
PCT/DE2004/001695

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-11	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-11	NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO

2. Citations and explanations:

see supplementary page

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY
(SUPPLEMENTARY SHEET)
International File No. PCT/DE2004/001695

Re Point V

**Reasoned statement under Rule 66.2(a)(ii) with regard to
novelty, inventive step or industrial applicability; citations
and explanations supporting such statement**

Independent Claim 1

1. The object of Claim 1 of the present application cannot be regarded as containing an inventive step for the following reasons (Article 33(3) PCT):

1.1. The following features of Claim 1 are, for example, already known from the most proximate related art D1 :
JP 09273653:

A solenoid valve 1, in particular for a fluid-regulated heating and/or cooling system, including a valve housing 7 having at least one feed channel 73 and at least one discharge channel 19 and an electromagnetically switched valve member 3 which establishes the connection between the feed channel 73 and the discharge channel 19 in one switch position and blocks it in the other switch position, the valve member 3 being rigidly connected to an armature 3 which can be moved by displacing fluid in a guide bushing 11 of a magnet coil 10, the guide bushing being inserted into an expanded part of a through opening of the magnet coil 10 which is delimited by an annular shoulder, the solenoid valve 1 having a damping disk 14 surrounding the armature

3.

(D1, Composition **[sic]**¹ and Figures 1 through 6).

- 1.2. The sole differentiating feature between the solenoid valve described in Document D1 and the solenoid valve according to Claim 1 is that according to Claim 1, the damping disk is situated between the annular shoulder and an adjacent face end of the guide bushing, while in D1, the damping disk is situated between one face end of the armature and one face end of a part 5 of the solenoid valve.
- 1.3. However, this differentiating feature refers only to the positioning of the damping disk and moreover appears to have no additional function that cannot be attained using the design according to Document D1.
- 1.4. Accordingly, the requirements of Article 33(3) PCT are not met.
2. In addition to D1, reference is made to Documents D2 : US 5947442 (column 4, line 41 through column 8, line 32 and Figures 1 through 3) and D3 : US 6267350 (column 1, line 48 through column 9, line 50 and Figures 1 through 9), which likewise anticipate the claimed object in an obvious manner.

Dependent Claims 2 through 11

3. Dependent Claims 2 through 11 contain no features, which in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to inventive step because the features listed in these dependent claims merely relate to simple and obvious

¹ T.N.: The German word "Zusammenfassung" (abstract) may have been intended.

measures that a person skilled in the art is accustomed to performing and are also unable to substantiate an inventive step. As described in the following, the additional features of these dependent claims are also partially known from the publications found in the search report.

- 3.1. The additional features of dependent Claims 2 and 7 are already known from Documents D1 (Figures 1 through 6), D3 (Figures 1 through 9).